Paper 39
Filed: December 12, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

STINGRAY GROUP INC. and STINGRAY MUSIC USA, INC.
Petitioners,

v.

EDWIN A. HERNANDEZ-MONDRAGON,
Patent Owner.

Case No. IPR2025-00350
U.S. Patent No. 10,524,002

PETITIONERS' REPLY TO PATENT OWNER RESPONSE

TABLE OF CONTENTS

I. Introduction....1
II. The Board Should Give Patent Owner's Opinions Little or No Weight....1
III. The Board Should Give Claim Terms Their Ordinary Meanings....4
IV. The Challenged Claims are Unpatentable....4
A. Ground 1: Claims 1-6, 13 are obvious in view of Avellan....4
a. Claim 1....4
Preamble 1....4
Element 1a....4
Element 1b....7
Element 1c....8
Element 1d....9
Element 1e....10
Element 1f....11
Element 1g....13
Element 1h....14
b. Claim 2....15
c. Claim 3....16
d. Claim 4....17
Element 4a-4f....17
Element 4g....17
Element 4h....17
e. Claim 5....18
f. Claim 6....18
g. Claim 13....18
Elements 13a-13g....18

Element 13h 18
B. Ground 2: Claims 1-6, 13 are obvious in view of Avellan, Ma, and Fain. 19
a. Claim 1 19
Elements 1a-1f 19
Element 1g 19
Element 1h 21
b. Claim 2 21
c. Claim 3 21
d. Claim 4 22
Element 4a-4f 22
Element 4g 22
Element 4h 23
e. Claim 5 23
f. Claim 6 23
g. Claim 13 24
Elements 13a-13g 24
Element 13h 24
C. Ground 3: Claims 7-9 and 11-12 Are Anticipated by Wannamaker. .24
a. Claim 7 24
Preamble 7 24
Element 7a 25
Elements 7b and 7c 25
Elements 7d and 7e 26
Element 7f 26
Element 7g 26
b. Claims 8-11 27

Element 8 27
c. Claim 12 27
Element 12 27
D. Ground 4: Claim 10 is Obvious in View of Wannamaker and Avellan. 27
V. CONCLUSION.....28
VI. CERTIFICATE OF WORD COUNT 29

TABLE OF AUTHORITIES

Cases

eBay Inc. et al v. Global Equity Mgmt. (SA) Pty. Ltd.,
No. 2016-01829, Paper 63 (PTAB April 19, 2018).....1, 2

EC Data Sys., Inc. v. J2 Global, Inc.,
No. 2014-008203, 2014 WL 7171966 (PTAB Dec. 15, 2014) 1

Mercedes-Benz USA, LLC v. Deadalus Prime LLC,
No. IPR2023-01335, 2025 WL 395548 (P.T.A.B. Feb. 4, 2025).....4

TV Mgmt., Inc. v. Perdiemco LLC,
No. IPR2016-01278, 2017 WL 6418915 (PTAB Dec. 15, 2017) 4

Rules

37 C.F.R. § 42.65(a).....1

PETITIONERS' EXHIBIT LIST

No.	Brief Description
1001	U.S. Patent No. 10,524,002
1002	File History of U.S. Patent No. 10,524,002
1003	U.S. Patent No. 8,954,600
1004	U.S. Patent Application Publication No. 2014/0150019
1005	"Java Programming 24-Hour Trainer", Yakov Fain
1006	U.S. Patent Application Publication No. 2004/0031052
1007	Declaration of Stuart Lipoff including *Curriculum Vitae*
1008	Declaration of June Munford including *Curriculum Vitae*
1009	U.S. Patent No. 10,123,074
1010	File History of U.S. Patent No. 10,123,074
1011	U.S. Patent Application Publication No. 2014/0068690
1012	Second Amended Complaint from related litigation, Case No. 1:24-cv21226
1013	P.A. Sarginson, "MPEG-2: a tutorial introduction to the systems layer," IEE Colloquium on MPEG-2 – What it is and What it isn't, London, UK, 1995, pp. 4/1-4/13
1014	Declaration of Michael D. McBride in Support of Petitioners' Notice of Intent to Designate Provisionally Recognized Attorney Michael D. McBride as Backup Counsel
1015	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 190 (February 12, 2025, Order Denying Motion to Stay Pending IPRs)
1016	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 202 (March 10, 2025, Order Denying Motion for Preliminary Injunction)
1017	April 9, 2025, correspondence from Plaintiffs' counsel serving Third Amended Complaint and dismissing Counts 8 and 9
1018	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 82 (July 15, 2024, Plaintiffs' Second Amended Complaint)

No.	Brief Description
1019	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 207 (March 12, 2025, Order Denying Plaintiffs' Motion to Strike Reply Brief and *sua sponte* Order Cancelling Scheduled Markman Hearing)
1020	SDFL Trial Stats
1021	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 214 (April 9, 2025, Plaintiffs' Third Amended Complaint)
1022	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 214 (April 9, 2025, Plaintiffs' Exhibit 25 to Third Amended Complaint)
1023	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 215 (April 11, 2025, Defendants Stingray Group, Inc.'s and Stingray Music USA, Inc.'s Stipulation Regarding the Defense of Patent Invalidity)
1024	April 11, 2025, correspondence from Defendants AT&T Enterprises, LLC, Blue Stream Communications, LLC, and Millicom International Service, LLC's counsel serving Plaintiffs' counsel with Stipulation Regarding the Defense of Patent Invalidity.
1025	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 13 (May 7, 2025, Plaintiffs Filing of Proof of Service on Defendant Stingray Music USA, Inc.)
1026	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 266 (May 28, 2025, Motion for Leave to Withdraw as Counsel for Plaintiffs Dr. Edwin A. Hernandez and Egla Corp.)
1027	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* Case No. 1:24-cv-21226, Dkt. 258 (May 20, 2025, Order Granting Joint Motion for Continuance of Certain Pre-Trial Deadlines)
1028	Omnibus Order Granting Plaintiffs' Motion for Leave to Withdraw and Staying Case, *Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.,* No. 1:24-cv-21226 (June 9, 2025) (Dkt. 291)
1029	Transcript of the Deposition Dr. Edwin Hernandez, IPR2025-00349, 350, 351, December 4, 2025
1030	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.*, Case No. 1:24-cv-21226, Dkt. 3-6 at 95-104 (April 3, 2024, Exhibit to Original Complaint, Letter from EGLA to Stingray Group dated April 20, 2021)

No.	Brief Description
1031	*Edwin A. Hernandez, et al. v. Stingray Group Inc., et al.*, Case No. 1:24-cv-21226, Dkt. 333 (Aug. 6, 2025, Order on Defendants' Motion to Extend Stay)
1032	Borko Furht et al., Multimedia: Broadcasting over the Internet: Part II—Video Compression, *IEEE MultiMedia* Project Reports, 1991
1033	U.S. Patent No. 11,695,967 to Furht, et al.

LISTING OF CHALLENGED CLAIMS[1]

Element	Claim Language
Claim 1	
[1 pre]	A computer-implemented method, comprising:
[1a]	receiving, from a content provider, a request for at least one media stream for playback on a broadcast media channel, wherein the at least one media stream includes a plurality of multimedia items of different types;
[1b]	obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;
[1c]	rendering a web page by a browser using the content;
[1d]	generating a temporal sequence of screen captures of the rendered web page, where each screen capture defines all the content of the web page at a given time, and at least two adjacent screen captures illustrate a dynamic change of at least a portion of the content over time;
[1e]	assembling the at least one media stream using the temporal sequence of screen captures; and
[1f]	providing the at least one media stream to the content provider for broadcast on the broadcast media channel;
[1g]	wherein the at least one media stream corresponds to at least one of an HTTP live stream (HLS), an HTTP playlist, and a Real-time Streaming Transport (RTSP) stream; and
[1h]	wherein the web page is rendered in parallel in multiple threads.
Claim 2	

[1] As the Petition presents the claim listing in its body in fragments and/or grouped by limitation type, rather than in numerical order, all claim limitations are presented here together so the Panel may easily view them in order and in context.

Element	Claim Language
[2]	The method according to claim 1, wherein the at least one media stream is interacted with MPEG two way control messages.
Claim 3	
[3]	The method according to claim 1, wherein MPEG messages are sent to a service provider via a unicast address.
Claim 4	
[4 pre]	A computer-implemented method, comprising:
[4a]	receiving, from a content provider, a request for at least one media stream for playback on a broadcast media channel, wherein the at least one media stream includes a plurality of multimedia items of different types;
[4b]	obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;
[4c]	rendering a web page by a browser using the content;
[4d]	generating a temporal sequence of screen captures of the rendered web page, where each screen capture defines all the content of the web page at a given time, and at least two adjacent screen captures illustrate a dynamic change of at least a portion of the content over time;
[4e]	assembling the at least one media stream using the temporal sequence of screen captures; and
[4f]	providing the at least one media stream to the content provider for broadcast on the broadcast media channel;
[4g]	wherein assembling the at least one media stream comprises inserting at least one MPEG packet including metadata corresponding to the multimedia item; and
[4h]	wherein the web page is rendered in parallel in multiple threads.

Element	Claim Language
Claim 5	
[5]	The computer-implemented method of claim 4, wherein the at least one media stream is interacted with MPEG two way control messages.
Claim 6	
[6]	The computer-implemented method of claim 4, wherein MPEG messages are sent to a service provider via a unicast address.
Claim 7	
[7 pre]	A system, comprising:
[7a]	a multicast server configured to generate parameters relating to at least one of video content, image content and audio content, and configured to output the parameters via MPEG outputs;
[7b]	a caching server communicatively coupled to the multicast server,
[7c]	and configured to receive and store the parameters,
[7d]	create a temporal sequence of screen captures of a rendered web page, where each said screen capture defines content of the rendered web page at a given time, and at least two adjacent screen captures in the temporal sequence illustrate a dynamic change of at least a portion of the video content, image content or audio content over time,
[7e]	assemble the temporal sequence of screen captures, and
[7f]	provide at least one of the video content, image content and audio content to the multicast server for generating a multicast stream with MPEG encoded video and audio; and
[7g]	a monitoring system configured to maintain generation of video and audio files, even in failure cases.
Claim 8	

Element	Claim Language
[8]	The system according to claim 7, further comprising multiple servers for load balancing and fault-tolerance.
Claim 9	
[9]	The system according to claim 7, wherein the multicast server is selected to communicate a multicast stream available for a broadband network.
Claim 10	
[10]	The system according to claim 7, wherein the video content is encoded in a video streaming format so as to generate a unicast stream.
Claim 11	
[11]	The system according to claim 7, wherein the system generates audio MPEG files and add [sic] metadata in an MPEG frame.
Claim 12	
[12]	The system according to claim 7, wherein the system generates MPEG metadata that is interacted with two way broadcast TV systems.
Claim 13	
[13 pre]	A computer-implemented method, comprising:
[13a]	receiving, from a content provider, a request for at least one media stream for playback on a broadcast media channel, wherein the at least one media stream includes a plurality of multimedia items of different types;
[13b]	obtaining content corresponding to the plurality of multimedia items from at least one source offering the content in at least one first format;
[13c]	rendering a web page by a browser using the content;

Element	Claim Language
[13d]	generating a temporal sequence of screen captures of the rendered web page, where each screen capture defines all the content of the web page at a given time, and at least two adjacent screen captures illustrate a dynamic change of at least a portion of the content over time;
[13e]	assembling the at least one media stream using the temporal sequence of screen captures; and
[13f]	providing the at least one media stream to the content provider for broadcast on the broadcast media channel;
[13g]	wherein the at least one media stream corresponds to at least one of an HTTP live stream (HLS), an HTTP playlist, and a Real-time Streaming Transport (RTSP) stream; and
[13h]	wherein the web page is rendered in parallel in virtual instances or virtual machines.

I. Introduction

The Stingray Petitioners submit this Reply to Patent Owner's Response, Paper 33 ("the POR"), regarding claims 1-13 ("the Challenged Claims") of U.S. Patent No. 10,524,002 ("the '002 Patent," Ex-1001).

II. The Board Should Give Patent Owner's Opinions Little or No Weight

In an attempt to stave off invalidation, the POR relies solely on an expert report authored by the Patent Owner himself, Dr. Edwin Hernandez. However, "[i]n assessing the probative value of an expert opinion, [the Board] must consider three factors: (1) the interest in the outcome of the case, (2) the presence or absence of factual support for the expert's opinion, and (3) the strength of any opposing evidence." *eBay Inc. et al v. Global Equity Mgmt. (SA) Pty. Ltd.*, No. 2016-01829, Paper 63 at 14 (PTAB April 19, 2018) (quoting *EC Data Sys., Inc. v. J2 Global, Inc.*, No. 2014-008203, 2014 WL 7171966, at *4 (PTAB Dec. 15, 2014)); *see also* 37 C.F.R. § 42.65(a) (holding that "[e]xpert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight").

Dr. Hernandez is ***not*** an unbiased or independent expert. As the sole owner and named inventor of the '002 Patent, as well as the majority owner of exclusive licensee EGLA Corp., Dr. Hernandez has a direct financial stake in the outcome of

this IPR and a substantial personal interest in preserving his own patents. *See* Ex-1029 at 5:11-16 and 236:15-22.

For example, prior to filing his underlying lawsuit, Dr. Hernandez sent Stingray a demand letter seeking $25 million for a license to his Challenged Patents. Ex-1030 at 10. Since filing his lawsuit, that demand has now increased to over $100 million for Stingray's alleged infringement. Given that the district court has stayed Dr. Hernandez's infringement claims pending this IPR, he knows that prevailing in this proceeding is a prerequisite to pursuing any patent royalties from Stingray. *See* Ex-1031 at 7. Dr. Hernandez also testified that he has been trying to monetize his Challenged Patents, including the '002 Patent, in negotiations with third parties, such as Google. Ex-1029 at 13:7-25. However, Dr. Hernandez conceded that those negotiations are currently "on hold" pending this IPR process, delaying what he believes could result in substantial royalties from licensing his Challenged Patents. Ex-1029 at 15:1-15 and 13:24-25.

Accordingly, Dr. Hernandez's opinions should be given less weight than those of a *bona fide* independent expert. *See eBay Inc. et al*, No. 2016-01829, Paper 63 at 14-15 (PTAB 2018) (holding that because the expert is "the sole named inventor" and has a "personal and financial interest in the outcome of this case, we give his testimony less weight"). Indeed, the POR itself directly reflects Dr. Hernandez's substantial bias by: (1) repeatedly trying to rewrite the actual claim language to add

new claim requirements that Dr. Hernandez contends are missing from a given reference, and/or (2) repeatedly ignoring a given reference's plain language and instead relying on Dr. Hernandez's conclusory assertions of what that reference does (or does not) disclose.

For example, one of Dr. Hernandez's primary arguments is that the cited Avellan reference is "specifically structured to **NOT** RENDER A WEB PAGE BY A BROWSER" (POR at 57, capitalization in original) despite Avellan's explicit disclosure of "remote browser 106," which can "render pages, images, and documents from the networks 150, 152." Ex-1003 at 4:62-65. Similarly, despite Avellan explicitly stating that it can broadcast "live streaming television feeds" and other media (Ex-1003 at 8:18-21), Dr. Hernandez asserts that "there is no media stream" in Avellan. POR at 54.

Given the plain disclosures of Avellan, these are not positions that a *bona fide* expert would reasonably take, and Dr. Hernandez's combative responses during his deposition rebut any notion that he is a neutral or dispassionate expert. *See, e.g.*, Ex-1029 at 233:8 (telling Petitioners' counsel that "all your questions are dumb"). Accordingly, his subjective opinions on what a reference discloses or a POSITA's motivation or ability to combine any cited references should be given little or no weight, especially when they conflict with the actual disclosures and evidence. *See Mercedes-Benz USA, LLC v. Deadalus Prime LLC*, No. IPR2023-01335, 2025 WL

395548, at *9-10 (P.T.A.B. Feb. 4, 2025) (not crediting testimony that "makes an overly semantic argument" that "ignores the actual arrangement of components of the [challenged patent] and the prior art"); s*ee also TV Mgmt., Inc. v. Perdiemco LLC*, No. IPR2016-01278, 2017 WL 6418915, at *24 (PTAB Dec. 15, 2017) (finding that Patent Owner's analysis "ignores critical portions of the record evidence" and affording their arguments "little weight).

III. The Board Should Give Claim Terms Their Ordinary Meanings

Neither Petitioners nor the POR advance any specific claim constructions. As a result, Board should give the claim terms their ordinary and customary meaning as understood by a POSITA.

IV. The Challenged Claims are Unpatentable

A. Ground 1: Claims 1-6, 13 are obvious in view of Avellan.

a. Claim 1

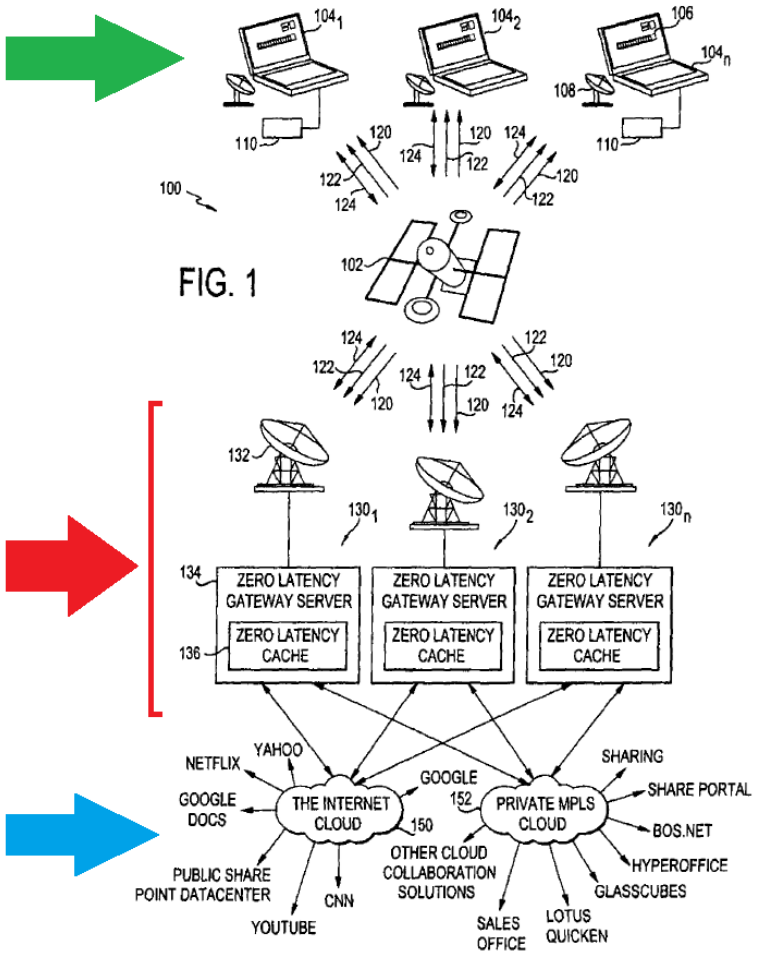
Preamble 1

The POR does not dispute that Avellan discloses Preamble 1.

Element 1a

Referring to Figure 1 below, Avellan teaches that "the system 100 provides for the user computers 104_1-104_n [green arrow] to access the Internet 150 and/or private network cloud 152 [blue arrow] through a virtual browser 106 of the gateway 130 [red arrow]." Ex-1003 at 4:18-25 and 6:22-25. The browser "resolve[s] and

render[s] pages, images, and documents from the networks 150, 152" and "[t]he gateway server 134 then images those web pages (which are typically in an HTTP format) to a video or image frame format." Ex-1003 at 4:62-67 and 5:20-22 (stating that the gateway uses "a compressed digital video format" to transmit content to the user).



Ex-1003 at Fig. 1.

Avellan can broadcast "live streaming television feeds" or other "live content." Ex-1003 at 8:18-21 and 8:27-31 (stating that "the broadcast channel can

be configured here to receive live content"). Similarly, the requested media stream can include a plurality of multimedia items of different types. Ex-1003 at 8:25-27 (stating that "there can be a number of broadcast channels and each channel can have a specific theme, such as country music, military television, etc.").

Despite this disclosure, the POR asserts that Avellan does not disclose Element 1a because "Petitioners treat web pages as media streams." POR at 20-22 (arguing that "a web page requested via HTTP format are not media streams"). The POR misunderstands the Petition and Avellan, which discloses a method that generates requested media streams—such as the aforementioned broadcast channels—using content obtained from the web. Indeed, the '002 Patent itself discloses that "contents corresponding to the multimedia items can be retrieved, downloaded, or otherwise obtained from one or more websites . . ." Ex-1001 at 7:57-59. The media stream is then "assembled" in Element 1e from screen captures of a web page rendered using that content. As detailed in the Petition, Avellan discloses that exact same process for assembling a media stream.

Similarly, there is no requirement in the '002 Patent that the request ***originates*** from the content provider. *See* POR at 20. Previously, the Board held that Claim 1 "does not limit the requests origin in any way" and preliminarily agreed with Petitioner. Paper 18 at 12-13. Patent Owner fails to provide any basis for requiring that the request "originates" at the content provider as opposed to merely being

"receiv[ed] from" the content provider, as recited in the claim language. Given that the POR does not dispute that Avellan discloses a "broadcast transmitter/receiver" that receives a request from broadcast device 102, the Board should maintain its original finding that Avellan discloses this element.

Element 1b

In an attempt to distinguish Avellan, the POR asserts that Element 1b requires a "separate request" to the web page. POR at 23. Although unclear, Patent Owner appears to argue that Claim 1 requires two separate requests: (1) a first request to obtain content corresponding to a plurality of multimedia items; and (2) a second request to obtain content corresponding to a web page. *See* POR at 22-23. For example, during his deposition, Dr. Hernandez asserted that "the web page is one request separate from the obtaining request" and attempted to distinguish Avellan on the basis that it "can only retrieve items that are embedded as part of a web page only." Ex-1029 at 90:21-92:5.

However, the plain language does not require two separate "requests" or "obtaining" steps or otherwise suggest that "content corresponding to the plurality of multimedia items" cannot be obtained from retrieval of a web page. The '002 Patent itself discloses that "contents corresponding to the multimedia items can be retrieved, downloaded, or otherwise obtained from one or more websites . . ." Ex-1001 at 7:57-59.

Patent Owner appears to confuse the relationship between Element 1b's "obtaining content" and Element 1c's "rendering a web page . . . using the content" by incorrectly suggesting that Element 1c ***further requires*** obtaining content separate from the content obtained in Element 1b. But Element 1c simply requires ***rendering*** a web page "using the content," which under antecedent basis principles refers to "the content" obtained in Element 1b. Because Avellan explicitly discloses obtaining "full multimedia web page[s]," which include audio and video, Avellan discloses Element 1b. *See* Ex-1003 at 5:5-19.

Element 1c

Avellan states "browser software 106 resides at the gateway 134 and "may rely upon the computing power and very high-speed connection of the gateway server 134 to resolve and ***render pages***, images, and documents from the networks 150, 152." Ex-1003 at 4:56-65 (emphasis added). "The gateway server 134 then images those web pages (which are typically in an HTTP format) to a video or image frame format." Ex-1003 at 4:65-67.

In light of this plain disclosure, Dr. Hernandez's claim that "Avellan is specifically structured to **NOT** RENDER A WEB PAGE BY A BROWSER" (POR at 57, capitalization in original) defies logic. Avellan's explicit reference to "browser"—a term already well-understood in the art to refer to applications that can render HTML—is accompanied by an explicit disclosure that this browser can

"render pages" to produce "images" that can be "captured." *See* Ex-1003 at 5:5-15. No *bona fide* expert could reasonably conclude that Avellan does not disclose Element 1c.

Element 1d

The POR does not actually dispute that Avellan discloses Element 1d. *See* POR at 24. As detailed in Avellan, the screen capture process "is preferably done by taking an image of the entire web page from top to bottom, including any portion that would normally be accessed by scrolling up/down or left/right but not immediately displayed on the screen because it is too long for a single screen." Ex-1003 at 4:67-5:4. Avellan also teaches that "web pages often have information which is rendered over a period of time, such as a video, streaming information, or an animated display. Accordingly, the gateway server 134 ***continuously captures images of the web page*** until it detects a repeating pattern of the information in the web page." Ex-1003 at 5:5-5:10 (emphasis added). Thus, for content that includes playback of video, streaming information or animations, Avellan generates a temporal sequence of screen captures that will illustrate a dynamic change of at least a portion of that content over time. Ex-1007, ¶122.

Instead, the POR simply asserts that this process provides "at best 'compressed video files' not media streams" for purposes of Element 1e, which is addressed below. *See* POR at 24.

Element 1e

Following the screen capture process, Avellan can then "compress the data into a ***compressed digital video format*** that can be sent to the user computer 104." Ex-1003 at 5:20-5:22 (emphasis added).

Although Avellan explicitly states it can broadcast media such as "live streaming television feeds" (*see* Ex-1003 at 8:18-21), the POR nonetheless suggests without explanation that Avellan's reference to a "compressed" video format must mean that the data is not streamed to a user. POR at 25. As argued by Dr. Hernandez in his accompanying declaration in related IPR2025-00349 for a similar element, "[t]here is a distinction on creating a '***compressed video file***' that requires the use of ZIP or TAR files, as opposed to ***encoding and decoding*** of video frames," such as through the MPEG standard. *See* IPR2025-00349 at Ex-2039, ¶126 (emphasis in original); *see also* Ex-1029 at 155:10-20 and 156:11-18.

But Avellan says nothing about requiring "ZIP" or "TAR" files and does not support Dr. Hernandez's artificial distinction between generating a "compressed video format" and "encoding video." Similarly, Patent Owner's own technical expert in the underlying litigation, Dr. Borko Furht of Florida Atlantic University, has authored academic papers referring to "the MPEG ***compression*** standard" and has a patent stating that "[a] video codec can include an electronic circuit or software that ***compresses or decompresses*** digital video." *See* Ex-1032 and Ex-1033 at 1:23-

24 (emphasis added); Ex-1029 at 39:18-21. Similarly, the Patent Owner's own exhibits refer to "MPEG video compression" (Ex-2040 at Chapter 5) and "the processes of compression (encoding) and decompression (decoding)" of video data (IPR2025-00349, Ex-2042 at 2). As a result, the POR has no basis to suggest that broadcasting "live streaming television feeds" using a "compressed digital video format" refers merely to sending ZIP or TAR "file snippets" that presumably would not satisfy a "media stream." Ex-1029 at 122:24-25.

Indeed, the '002 Patent also does not exclude the generation and storage of a "compressed video file" prior to broadcast. For example, Claim 20 recites providing a "***previously recorded*** media stream" to the content provider, which would necessitate storage of that stream. *See also* Ex-1001 at 11:27-28 (disclosing a "caching server" from which "a file can then be streamed") and 7:34-36 ("The output format can be an MPEG Transport Stream file that can be ***retrievable*** or streamed to the multicasting embodiment."). As a result, the POR's insinuation that generation of a compressed "file" is somehow incompatible with a "media stream" is without basis.

Element 1f

Avellan also discloses providing the assembled media stream to the content provider for broadcast. Once the video frame format is generated, Avellan "sends it to the browser 106 via the satellite 102." Ex-1003 at 5:12-5:15 and 8:54-56 ("Once

the broadcast data is stored in the gateway cache 136, the gateway server 134 then transmits that data to the multiple user computers 104"). The POR does not dispute that this process involves sending the identified media stream to Avellan's disclosed broadcast transmitter and to device 102 for broadcast on the broadcast media channel.

Instead, the POR suggests that the "content provider is the same as the gateway platform." POR at 25. But this misunderstands Avellan and the Petition. The gateway platform 130 "includes a respective satellite antenna 132 or a broadcast transmitter/receiver, and a gateway server 134." After the gateway server 134 assembles the identified media stream, Avellan uses the broadcast receiver/transmitter (i.e., satellite antenna 132) to transmit the media stream to satellite 102 of Figure 1 for broadcast.

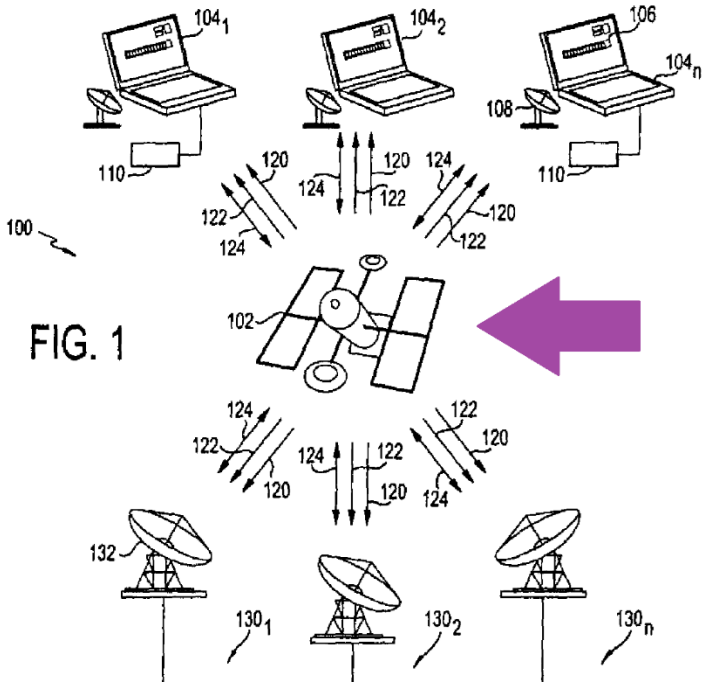


FIG. 1

Given that the ’002 Patent explicitly states that a content provider can include a “satellite” operator (Ex-1001 at 1:20 and Claim 9), Avellan’s disclosure of using the broadcast receiver/transmitter (i.e., satellite antenna 132) to send the stream to satellite 102 for broadcast satisfies element 1f.

Element 1g

Based on the disclosures of Avellan cited in the Petition, Avellan contemplates the use of a video transfer protocol and would be motivated to apply a commonly-known transmission protocol that was tailored for the delivery of live content, such as the “live streaming television feeds” of Avellan. Ex-1007, ¶125. The POR does not dispute that use of HLS to deliver live and on-demand audio and video streams from the internet has been well known since at least 2009. *Id*. Similarly, the POR does not dispute that RTSP is a network protocol that controls the streaming of media content over the internet and has been well known since at least 1998. *Id*. As explained in the Petition and Lipoff Declaration, HLS and RTSP would have been obvious design choices and a POSITA would have used them with a reasonable expectation of success. *Id*.

Neither the POR nor Dr. Hernandez provide any explanation for why the compressed digital video format of audio and video data of Avellan could not be transmitted downstream using either the HLS or RTSP protocols. As discussed above, Avellan discloses the exact same process of generating a sequence of screen

captures of a rendered web page claimed in the '002 Patent and then combines them in a digital video format for transmission. The mere fact that Avellan does not explicitly disclose using "HLS" or "RTSP" (see POR 26) says nothing about whether it would have been ***obvious*** to a POSITA to use such well-known protocols in combination with Avellan.

Element 1h

Avellan states that the disclosed steps of Fig. 2 "may be performed in parallel." Ex-1003, 14: 4-7. Avellan also references Java and acknowledges that it was well-known in the art. Ex-1003, 13:40-41. Because Java is a programming language that can process multiple threads in parallel, a POSITA would have been motivated to use Java to execute multiple threads in parallel (as envisioned by Avellan). The POR does not dispute the above and instead asserts without basis that "known rendering engines simply do not use Java." POR at 27; Ex-2039 at ¶124. But this says nothing about using Java to execute multiple threads in parallel, where each thread employs a browser to render a web page's content. In other words, the POR fails to explain why a browser must be written in Java for multiple Java threads to spawn and manage rendering engines in parallel. For example, the cited Fain reference in Ground 2 of the Petition explicitly states that "[a]ny web browser works in a multi-threaded mode." Ex-1005 at Chapter 20. Similarly, nothing in the claim language requires using a specific "known" browser or otherwise rules out a

rendering engine written in Java to the extent that would even be necessary or advantageous, and the POR does not offer any support for adding such a limitation to the claim.

b. Claim 2

Given Avellan's use of a tag file, which allows for two-way user interaction, and its disclosure of producing digital video in a compressed digital video format, which would include standards such as MPEG, it would have been an obvious design choice for a POSITA to use MPEG two way control messages as a mechanism to facilitate such interaction in Avellan. Ex-1007, ¶132. Accordingly, POSITA would have found it obvious to use MPEG two-way control messages to interact with the media stream of Avellan. *Id*.

In response, the POR argues that "Avellan does not disclose how to process" an MPEG stream or "how to insert packets" into a stream. However, the POR does not dispute that the MPEG standards were well-known in the art or dispute that a POSITA would not know how to employ those well-known standards to integrate MPEG two-way control messages into Avellan. In other words, the mere assertion that Avellan does not disclose "how" to do something says nothing about whether that would have been *obvious* to a POSITA.

c. Claim 3

Avellan discloses a "unicast mode" where "the user requests unicast data (e.g., less-popular websites or websites having highly user-customized information) at the browser" and the "gateway server images that one web page, compresses the unicast data, and transmits the compressed unicast data over the broadcast device substantially in real time to the one requesting user computer." Ex-1003, [Abstract]. As discussed in the Petition, MPEG is a well-known standard for compression and transmission of digital video images that has been around since at least 1995. Ex-1007, ¶133. Moreover, it was well-known to a POSITA that an MPEG stream includes MPEG messages. *Id*. Therefore, it would have been obvious to a POSITA to send MPEG messages to a service provider via Avellan's unicast mode. *Id*.

In response, the POR asserts that Avellan would need to show that "instead of using 'compressed images' [it] uses 'MPEG messages.'" POR at 28. However, Claim 3 does not include any requirement of what the MPEG messages contain, and the POR fails to explain why Avellan's generation of compressed digital video is incompatible with the sending of any MPEG messages. Similarly, the POR's argument that Avellan needs to "[s]how that a user's set top box can 'listen' to packets and become a 'sink' for unicast messages" ignores the undisputed fact that the MPEG standard was well-known to POSITAs. In other words, the mere

assertion that Avellan does not disclose "how" to process MPEG messages says nothing about whether that would have been *obvious* to a POSITA.

d. Claim 4

Element 4a-4f

For Elements 4a-4f, the POR refers to its arguments for Elements 1a-1f. POR at 29. Accordingly, Petitioners similarly refer to their response above.

Element 4g

For this element, the POR argues that it is not satisfied because Avellan does not disclose a media stream. POR at 29 As explained above for Element 1e, this assertion is incorrect and Avellan plainly discloses assembling a media stream and using the same process claimed in the '002 Patent. In particular, Avellan discloses that the screen captures may be compressed "into a compressed digital video format that can be sent to the user computer 104 for display in the browser." Ex-1003 at 5:19-22. The POR does not dispute that MPEG is a compressed digital video format that was well-known at the time. Ex-1007, ¶134. Moreover, the POR does not dispute that it was well-known that MPEG packets include metadata corresponding to the multimedia item. *Id*.

Element 4h

The POR does not dispute this element. However, to the extent the POR implicitly disputes this element, Petitioner refers to its discussion for Element 1h.

e. Claim 5

For this claim, Dr. Hernandez and the POR rely on the same arguments for Claim 2. *See* Ex-2039 at ¶141 and POR at 30. Accordingly, Petitioners similarly refer to their response above.

f. Claim 6

For this claim, the POR relies on the same arguments for Claim 3. *See* POR at 30. Accordingly, Petitioners similarly refer to their response above.

g. Claim 13

Elements 13a-13g

For Elements 13a-13g, the POR relies on the same arguments for Elements 1a-1g. *See* POR at 31. Accordingly, Petitioners similarly refer to their response above.

Element 13h

The POR argues without explanation that "as Avellan does not hold a 'plurality of multimedia items' separate from the web page [] this limitation is not met." POR at 32. This appears to be the same argument the POR raises for Element 1b above and is equally deficient here.

The POR does not dispute that Avellan discloses using a virtual browser and, therefore, teaches that the web page is rendered in virtual instances or virtual machines. *See* Ex-1003 at 3:27-34 and 6:55-58. Moreover, the POR does not dispute

that the use of a "virtual machine" or a "virtual instance" to render a webpage was well known to POSITA and would have been an obvious design choice. Ex-1007, ¶137 and Ex-1005 at 7, 104 (disclosing the use of a Java Virtual Machine ("JVM")). Instead, the POR argues that "virtual instances and virtual machines for rendering a web page is not disclosed by Avellan" and "there is no disclosure by Avellan for how this process is done." POR at 32. However, as with the POR's response to many of the Petition's proposed combinations, the mere assertion that Avellan does not disclose "how this process is done" says nothing about whether that would have been *obvious* to a POSITA.

B. Ground 2: Claims 1-6, 13 are obvious in view of Avellan, Ma, and Fain.

a. Claim 1

Elements 1a-1f

Petitioners refer to their response above in Ground 1.

Element 1g

Ma discloses a "live stream processor 102 [that] is responsible for acquiring source content from a live feed and preparing the content for distribution." Ex-1004, [0033]. The "source content" of Ma includes media streams such as "real-time audio/video content" and explicitly discloses the use of the HLS protocol. Ex-1004, [0031]-[0033].

The POR does not dispute that HLS is a "well defined" protocol known to POSITAs. Instead, the POR argues that HLS will have to be "merged" with Avellan's use of "a web-to-HD video protocol," which Dr. Hernandez asserts would produce a worse outcome and require undue experimentation. POR at 34. However, Avellan merely states that "[i]n a non-limiting aspect of the invention, a web-to-HD video protocol ***may be used*** to capture and transmit images/audio of a web page, including a full multimedia web page." Ex-1003 at 5:16-18 (emphasis added). Thus, Avellan does not require "a web-to-HD video protocol" and the POR fails to explain why it would have to be "merged" with HLS.

Moreover, Avellan's reference to "a web-to-HD video protocol" refers to the disclosed process that can "capture and transmit images/audio of a web page," which "may be configured to compress the data ***into a compressed digital video format*** that can be sent to the user" for display. Given that HLS is a protocol used to transmit compressed digital video, the POR fails to explain why Avellan's described process is not readily compatible with the known HLS protocol. Indeed, as discussed above in Claim 1, the process disclosed in Avellan for obtaining content, rendering a web page, and generating screen captures is identical to the corresponding limitations of the '002 Patent. As a result, a POSITA would have been motivated to combine Avellan with Ma's HLS protocol, particularly for use in transmitting Avellan's live streamlining television feeds. Ex-1007, ¶¶141-144.

Element 1h

For Element 1h, the POR relies on the same arguments as in Ground 1. *See* POR at 34. Accordingly, Petitioners similarly refer to their response above.

b. Claim 2

The only "two way" control message referenced in the '002 Patent is the MPEG TS Control messages. Ex-1001 at 11:35-40. Ma discloses the use of MPEG-TS for interaction with the media stream. Ex-1007, ¶150; Ex-1004 at [0038]-[0043]. As detailed in the Petition, Ma discloses MPEG metadata that interacts with two way broadcast TV systems—i.e.—that the at least one media stream is interacted with MPEG two way control messages. *Id*. Indeed, the Examiner rejected this element in view of Ma during prosecution, and the Applicant did not traverse that rejection. Ex-1002 at 40. Neither the POR nor Dr. Hernandez provide any explanation for why Ma does not disclose the element of Claim 2, and Petitioners legitimately cannot discern any such argument from either the POR or Dr. Hernandez's declaration. *See* POR at 35; Ex-2039 at ¶¶168-172.

c. Claim 3

Ma discloses using "unicast MPEG-TS." Ex-1004 at [0045]. Accordingly, as detailed in the Petition, a POSITA would have been motivated to combine Avellan and Ma to implement the unicast MPEG messages of Ma in the unicast mode of Avellan. Ex-1007, ¶155. The POR appears to misunderstand the nature of the

described combination. Avellan already explicitly discloses a unicast mode for sending digital video, including live streaming television feeds, to a user through the pathway of Figure 1. Ma teaches that "unicast MPEG-TS" is a protocol that can be sued for such a "live feed." *See* Ex-1004 at [0045]. As a result, the combination described renders Claim 3 obvious.

d. Claim 4

Element 4a-4f

For Elements 4a-4f, the POR refers to its arguments for Elements 1a-1f. POR at 37. Accordingly, Petitioners similarly refer to their response above.

Element 4g

For this element, the POR reiterates its argument from Ground 1 that it is not satisfied because Avellan does not disclose a media stream. POR at 37. Accordingly, Petitioners similarly refer to their response above. Moreover, Ma discloses a metadata insertion module that supports different file formats including MPEG-TS. *See* Ex-1004 at [0050]. Ma further discloses inserting metadata (e.g., ID3 tags, custom metadata headers, alternate data channels, etc.) into MPEG-TS segments and using this data for providing advertisements. *See* Ex-1004 at [0038]-[0041] and [0010] (stating that "the client responds to metadata that has been inserted into a media stream to indicate upcoming advertisement boundaries"). The POR does not dispute that the metadata disclosed in Ma would correspond to the

multimedia item for purposes of Element 4g or that this metadata would be included in packets in the MPEG stream. The POR's mere assertion that Ma does not explicitly disclose "understanding and knowledge of Program Identifiers, Program Management Tables, Timing Structures, among many other MPEG Transport Stream concepts" (see POR at 38) is irrelevant given what Ma literally discloses and the actual claim language of Element 4g. Similarly, the POR does not dispute that the MPEG standards are well-known to POSITAs and fails to explain why Ma would have to disclose such details in order for the described combination of Ma and Avellan to render this claim element obvious.

Element 4h

The POR refers to Element 1h for this claim element. *See* POR at 38-39. Accordingly, Petitioner refers to its discussion for Element 1h.

e. Claim 5

The POR refers to Claim 2 for this claim element. *See* POR at 39. Accordingly, Petitioner refers to the above discussion.

f. Claim 6

The POR refers to Claim 3 for this claim element. *See* POR at 39. Accordingly, Petitioner refers to the above discussion.

g. Claim 13

Elements 13a-13g

For Elements 13a-13g, the POR relies on the same arguments for Elements 1a-1g. *See* POR at 40. Accordingly, Petitioners similarly refer to their response above.

Element 13h

The POR argues without explanation that "as Avellan does not hold a 'plurality of multimedia items' separate from the web page [] this limitation is not met." POR at 32. This appears to be the same argument the POR raises for Element 1b above and is equally deficient here.

Moreover, contrary to the POR's conclusory statement that "Fain is a Java Programming Book adding no more substance to Petitioners' arguments," Fain explicitly discloses the use of "Java Virtual Machines." *See, e.g.*, Ex-1005 at 7. The POR does not address this disclosure in Fain or rebut the proposed combination in Ground 2 of the Petition.

C. Ground 3: Claims 7-9 and 11-12 Are Anticipated by Wannamaker.

a. Claim 7

Preamble 7

The POR does not dispute that Wannamaker discloses Preamble 7.

Element 7a

Wannamaker's application server includes "the data carousel server for data formatting, and Multimedia Streamer (MMS) components for data transmission." Ex-1006, [0169] and [0174]. The out-of-band servers of the MMS can "***multicast*** to a group of set-top boxes." Ex-1006, [0229-0232]. The POR provides no explanation for its assertion that Wannamaker does not disclose a multicast server. *See* POR at 42. The POR does not tie its reference to "modulation using QPSK" or that "a keyboard command is needed" to any claim requirement.

Elements 7b and 7c

As shown, for example, in Figure 3 of Wannamaker, the application server communicates with a cache manager, which "manages the fetching (via the crawler) and the rendering (via the renderer)" of the generated image and video content. Ex-1006 at Fig. 3 and [0256]. The cache manager receives parameters "relating to at least one of the video content, image content and audio content," including for example parameters for resolving the requested URL and parameters for the "layout preview mode" which are used to ensure that the MPEG stream output to the set-top boxes has the "same width as the TV screen" and "at least the height" of the screen. *See* Ex-1006 at [0254] and [0261]-[0264].

The POR appears to argue that these are not "encoding parameters." POR at 43. However, the claim does not limit the term "parameters" to only encoding

parameters and the ’002 Patent discloses parameters relating to a screen’s “resolution” or the time duration of a feed. Ex-1001 at 6:30-44.

Elements 7d and 7e

Wannamaker discloses “parsing and rendering the HTML to produce output image files (FMB)” which correspond “to one or more MPEG frames for transmission to digital set-top boxes.” Ex-1006 at [0259]-[0264]. For HTML content such as videos or animations, Wannamaker teaches that the content is “rendered as separate frames.” Ex-1006 at [0275]. The POR fails to explain its assertion that “no images are captured” in Wannamaker. *See* POR at 44.

Element 7f

The POR relies on its argument for Element 7a. POR at 44. Accordingly, Petitioners refer to their response above.

Element 7g

The POR fails to explain why Wannamaker’s disclosure of server redundancy and the “operator management interface” (OMI) that provides fault tolerance fails to satisfy this limitation. *See* POR at 44-45. Contrary to the POR, the claim language does not refer to specific “software features that suffer failures” or otherwise require a vague and unspecified “resemblance” to Patent Owner’s own Mediamplify product.

b. Claims 8-11

Element 8

The POR's arguments for Claims 8-11 either recycle arguments addressed above or inexplicably ignore the cited disclosures in Wannamaker, for example, by denying that Wannamaker discloses "fault tolerance" despite literally disclosing this concept verbatim. *See* Ex-1006 at [0103]. Accordingly, Petitioners refer to their arguments above the Petition itself.

c. Claim 12

Element 12

The POR does not dispute that Wannamaker discloses this element. *See* POR at 46.

D. Ground 4: Claim 10 is Obvious in View of Wannamaker and Avellan.

The POR claims that the combination of Wannamaker and Avellan "collide" because Wannamaker only discloses "transcoding" HTML text to MML text whereas Avellan discloses "capturing" images from rendered HTML. POR at 47. This is fundamentally incorrect. Like Avellan, Wannamaker also discloses "rendering HTML to produce output image files (FMB)" that are put in "MPEG frames" for transmission to a set-top box. Ex-1006 at [0259] and [0271].

V. CONCLUSION

Accordingly, Petitioners respectfully request cancelation of the Challenged Claims.

Dated: December 12, 2025

Respectfully submitted,

/s/ Masood Anjom

Masood Anjom (Reg. No. 62,167)

ALAVI & ANAIPAKOS PLLC
609 Main Street, Suite 3200
Houston, TX 77027
Tel: (713) 751–2365
Fax: (713) 751–2341
manjom@aatriallaw.com

Counsel for Petitioners,
STINGRAY GROUP INC. and STINGRAY MUSIC USA, INC.

VI. CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. §42.24(d), Petitioner hereby certifies, in accordance with and reliance on the word count provided by the word-processing system used to prepare this petition, that the number of words in this paper is 5,571. Pursuant to 37 C.F.R. §42.24(d), this word count excludes the table of contents, table of authorities, mandatory notices under §42.8, certificate of service, certificate of word count, appendix of exhibits, and any claim listing.

Dated: December 12, 2025

/s/ *Masood Anjom*
Masood Anjom (Reg. No. 62,167)

Counsel for Petitioners,
STINGRAY GROUP INC. and STINGRAY MUSIC USA, INC.

CERTIFICATE OF SERVICE

The undersigned certifies that on the twelfth day of December, 2025, a complete and entire copy of the foregoing "PETITIONERS' REPLY TO PATENT OWNER RESPONSE" including exhibits, if any, was served on the date below on the following counsel of record via email per Patent Owner's consent to electronic service.

Robert L. Drolet
Reg. No. 73,594

RL DROLET
PATENT PROSECUTION SERVICES, LLC
515 E. Las Olas Boulevard, Suite 120
Fort Lauderdale, FL 33301
954.691.0260
rob@rldpatents.com

Daniel B. Ravicher
Reg. No. 47,015

ZEISLER PLLC
750 Third Avenue
New York, NY 10017
Phone: (917) 843-3425
dan@zeisler-law.com

Dated: December 12, 2025

/s/ Masood Anjom

Masood Anjom (Reg. No. 62,167)

Counsel for Petitioners,
STINGRAY GROUP INC. and STINGRAY MUSIC USA, INC.